

Date: Wed, 9 Nov 94 04:30:30 PST
From: Ham-Digital Mailing List and Newsgroup <ham-digital@ucsd.edu>
Errors-To: Ham-Digital-Errors@UCSD.Edu
Reply-To: Ham-Digital@UCSD.Edu
Precedence: List
Subject: Ham-Digital Digest V94 #373
To: Ham-Digital

Ham-Digital Digest Wed, 9 Nov 94 Volume 94 : Issue 373

Today's Topics:

- Accessing CDROM from NOS bbs ? (2 msgs)
- Amtor/Pactor BBS Freqs
- Grapes 56KB info needed (2 msgs)
- Ham-Digital Digest V94 #367
- Help with radio modems
- Internet <--> AX25 ??
- KISS EPROM
- Need AX25 <--> KISS SoftWare Interface
- New access protocol
- NoCal 00 goes after Packet BULLETins
- Packet addresses and Internet: Connection?
- Pakratt for Windows-PK232MBX Problem
- Pulsed BPSK hoax?(???)
- TNC/MMC Software for SB?

Send Replies or notes for publication to: <Ham-Digital@UCSD.Edu>
Send subscription requests to: <Ham-Digital-REQUEST@UCSD.Edu>
Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Digital Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-digital".

We trust that readers are intelligent enough to realize that all text
herein consists of personal comments and does not represent the official
policies or positions of any party. Your mileage may vary. So there.

Date: 8 Nov 1994 04:56:26 GMT
From: ppiercey@random.ucsf.mun.ca (Paul Piercey)
Subject: Accessing CDROM from NOS bbs ?

Lachlan Audas (laud@werple.apana.org.au) wrote:

: Hi there, I'm trying to find a version of NOS which lets BBS users
: access the CDROM drive for downloading programs etc.

: Can anyone suggest where I could get a version of NOS which does this for

: the PC.

: Thanks.

: Lachlan Audas

In thinking how that might work with any version, the nosenv.bat file substitutes drive names so you could set one up to substitute the files directory on your CDROM to one that is accessible within NOS. I haven't tried it but I think I will not that I thought of this. The only other thing that accesses a CDROM is the callserver, in a few versions of NOS. I am looking for a version of JNOS that has LZW compression and a callserver. If you hear of that, please let me know HI. I'll let you know how I make out with the above test.

73

=====
Paul J. Piercey (V01HE)

Packet Address	V01HE@V01SIG.#ENF.NF.CAN.NA
Internet Address	ppiercey@random.ucs.mun.ca
	ppiercey@morgan.ucs.mun.ca

=====

Date: 8 Nov 1994 05:07:06 GMT
From: ppiercey@random.ucs.mun.ca (Paul Piercey)
Subject: Accessing CDROM from NOS bbs ?

Lachlan Audas (laudas@werple.apana.org.au) wrote:

: Hi there, I'am trying to find a version of NOS which lets BBS users
: access the CDROM drive for down loading program's etc.
: Can anyone suggest where I could get a version of NOS which DOS this for
: the PC.
: Thanks.

: Lachlan Audas

I just tried to do a substitution for the CDROM and it wouldn't work so I guess I'm stumped HI. Would be nice but better for ftp access rather than BBS access.

CUL

=====
Paul J. Piercey (V01HE)

Packet Address V01HE@V01SIG.#ENF.NF.CAN.NA
Internet Address ppiercey@random.ucs.mun.ca
ppiercey@morgan.ucs.mun.ca

Date: 8 Nov 1994 01:00:18 -0500
From: garyp81410@aol.com (GaryP81410)
Subject: Amtor/Pactor BBS Freqs

I am planning to return to St John's this summer to stay with my brother in law, Dick Stoker who works at the Arts Center at Memorial. Is there much packet activity? I am planning on bringing a portable HF rig and wondered what else to bring along.

Also, is Nat Penny V01NP or Barry Mackay V01BM? still around?

Cheers, Gary W7JZU Far from the sea

Date: 7 Nov 94 21:34:00 GMT
From: steve.diggs@totrbbs.atl.ga.us (Steve Diggs)
Subject: Grapes 56KB info needed

-> Newsgroups: rec.radio.amateur.digital.misc
-> From: tbarnett@lexmark.com
-> Subject: Grapes 56KB info needed
-> Message-ID: <Cywz8M.5oo@lexmark.com>
-> Date: Mon, 7 Nov 1994 20:21:57 GMT
-> Reply-To: tbarnett@lexmark.com
->
-> - How much are the Grapes 56KB modems? - Are they a kit? How much?
-> Where to get them? - Can several of them "co-exist" on a channel
-> together? Collision problems? - Is there a faq on them that can help
-> me? - I understand they need a 440 transverter, already have that in
-> hand... Tyler Barnett N4TY

Tyler,
Here follows the standard GRAPES beginning info packet. I maintain GRAPES.ZIP on my BBS, and regularly update it. After you read it, let me know if you still have any unanswered questions.

-----cut here-----

Heatherington WA4DSY 56KB RF Modem

GRAPES (a Non-Profit Volunteer Organization of Georgia Amateur Radio Operators) is selling full kits of the WA4DSY 56KB RF Modem for \$250. The proceeds from the kits support our packet network building activities.

You will need a transverter with a 28 MHz I.F. for the band of your choice, a case, connectors, power supply and frequency determining crystals. The printed circuit boards, documentation, State EPROM, support diskette and all other parts are supplied.

The transverter chosen should switch as quickly as possible in the 5-15 msec range to be effective. We use the Microwave Modules MMt 432-28S units; however, these are getting difficult to find except as used ones at hamfests. The last few we purchased new were also pretty expensive (\$389). We believe that their 220 MHz units were quite a bit cheaper, but we've never bought any new. On the hamfest market, we have been paying \$125 to \$185 for used, normally working units.

Maple Leaf Communications (Bob Morton, VE3BFM) is shipping a 220 transverter which has good characteristics and an even better price tag (\$279). We have two of these units and they seem to work fine. Contact Bob at 705-435-0689 or RR #1, Everett, ONTARIO, Canada, L0M 1J0.

The transverter must be linear as the modem has amplitude variations as part of the conveyed modulation, which must be reproduced by the transverter. Usually any transverter capable of SSB operation is suitable if it switches quickly enough.

We also sell a printed circuit board set that includes the State EPROM, documentation and support diskette for \$110. Documentation sets are available separately for \$20 and we have a VHS (beta by special request) Video tape featuring Dale Heatherington explaining the Beta modem design for \$20.

Documentation sets are creditable towards the full parts kits or board sets and the board sets are also creditable towards the full parts kits.

We pay U.S. shipping, however, we do require that the approximate difference between domestic ground delivery and premium shipping be sent in advance. Overseas second day air can cost up to \$60 per kit! The kits weigh about 2.5 pounds each, and we can put 3 to 4 kits in a single box to save on shipping.

Please send orders (a letter is fine) and your check payable in U.S. funds to:

GRAPES, Inc.
PO Box 636

Griffin, GA 30224-0636

We're sorry but we cannot accept Purchase Orders nor Credit Cards. Please allow four to six weeks for delivery.

THANKS!! Bob KA4BYP, email: ka4byp@netcom.com

....56kb....56kb....56kb....56kb....56kb....56kb....56kb....56kb....56kb....

--

```
Bob Merritt KA4BYP -----\ /-----
PO Box 185 > email: ka4byp@netcom.com <
Griffin, GA 30224 -----/ \-----
<<<>>>
```

```
Top Of The Rock BBS - Lilburn, GA      SYSOP: Steve Diggs
UUCP: tottribbs.atl.ga.us              Snailmail: 4181 Wash Lee Ct.
Phone: +1 404 921 8687                  Lilburn, GA 30247-7407
```

Date: Mon, 7 Nov 1994 20:21:57 GMT
From: tbarnett@lexmark.com
Subject: Grapes 56KB info needed

- How much are the Grapes 56KB modems?
- Are they a kit? How much? Where to get them?
- Can several of them "co-exist" on a channel together? Collision problems?
- Is there a faq on them that can help me?
- I understand they need a 440 transverter, already have that in hand...

Tyler Barnett N4TY

Date: 8 Nov 94 13:08:17 GMT
From: rnbedo@arcride.EDU.AR
Subject: Ham-Digital Digest V94 #367

unsubscribe

Date: Tue, 8 Nov 1994 00:59:09 GMT

From: gary@ke4zv.atl.ga.us (Gary Coffman)
Subject: Help with radio modems

In article <CywMGU.Iuz@usenet.ucs.indiana.edu> anurag@chandra.astro.indiana.edu (Anurag Shankar) writes:

>We are interested in installing radio modems at our observatory in a forest
>nearby (line of sight distance is about 11 miles) and our department here on
>campus. This is so that we are in constant contact with the vax at the
>observatory. (The observatory is configured to run automatically, unattended.)
>We do this currently over a noisy phone line which won't let us work any
>faster than 2400 baud.

>

>Our main problem is that we know next to nothing about radio modems. A
>company called DataComm sent us quotes for two new S-band spread spectrum
>modems (57Kbaud) with antenna for about \$7500. Because I have heard that
>this range of freq. is particularly susceptible to interference by rain etc.,

Rain fades aren't serious at S band, but they're killers at K band.

>we want to be absolutely sure that this thing will work (unfortunately the
>company charges too much money to do an actual field test). Our main concern
>is trees (we obtained a map of the area which shows that the line of sight
>WILL have trees in it). We cannot erect a tall antenna in the forest
>because of lightening danger/problems with getting permits etc.

>

>Given these facts, can anyone suggest what our best bet is as far as
>radio modems are concerned? Are the prices quoted above reasonable?

Alas, the prices are on the low end of what good microwave link
equipment costs.

>Any help/suggestions will be appreciated.

Assuming you need at least 9600 baud duplex capability, there are
several options. Grainger Associates makes a series of duplex data
radios in the 928-952 MHz range. And you can use ordinary UHF radios
on a clear pair as well. The problem is getting licensed channels
in both cases. That's why you're seeing most emphasis on S band
and higher systems. Getting a channel assignment is much easier
at microwave since frequency reuse can be based on rather close
geographic separation. And, of course, much higher data rates
can be passed over a microwave channel.

The downside of microwave is that to get the kind of reliable signal
you need requires a clear line of sight path. If you can't clear
the trees, and the first Fresnel zone, then you're going to have
fading on the path. You need to do some testing. If you can't
find a manufacturer willing to let you test, get an experimental

license from the FCC (simple) and use a low power simple carrier generator and receiver to watch fade margins over a course of a few weeks. This will give you an idea of how well that frequency will work over your path. (You really need to test over a full year, however, since seasonal changes can have marked effects.)

Frankly, I think your best bet is to have the phone company clean up their act and give you a good line.

Gary

--

Gary Coffman KE4ZV		You make it,		gatech!wa4mei!ke4zv!gary
Destructive Testing Systems		we break it.		emory!kd4nc!ke4zv!gary
534 Shannon Way		Guaranteed!		gary@ke4zv.atl.ga.us
Lawrenceville, GA 30244				

Date: 8 Nov 1994 12:11:01 GMT
From: Gianluca Mazzini <gmazzini@deis.unibo.it>
Subject: Internet <--> AX25 ??

Exist some UNIX tool to interface the AX25 with internet through a UNIX workstation ??

Please send me info:

gmazzini@deis.unibo.it

73 de IK4LZH John

Date: Mon, 7 Nov 1994 17:04:50 LOCAL
From: nielsen@primenet.com (Bob Nielsen)
Subject: KISS EPROM

In article <CywCyr.Evn@metronet.com> kf5mg@metronet.com writes:

>Does anyone know where I can find a KISS ONLY EPROM for a TNC-2 Clone?
>Preferably a KISS EPROM that has the random, reset problem fixed that
>my MFJ TNCS have. Thanks.

The code is available on ftp.ucsd.edu and TAPR sells programmed KISS-only eproms. I don't think the KISS eprom has the reset problem, but haven't verified it. The reset problem is known, but nobody has found a fix for it yet (any volunteers?)

73 de Bob

Bob Nielsen, W6SWE
Tucson, AZ
nielsen@primenet.com

Date: 8 Nov 1994 12:16:10 GMT
From: Gianluca Mazzini <gmazzini@deis.unibo.it>
Subject: Need AX25 <--> KISS SoftWare Interface

In the developing of a AX25 information service, in the style of BBS but with other information (QSL route and so on) i need the capability of switch and follow the information of each stream. With a KAM i have found a way by analyzing directly the packets but this is not standard.

To make standard and give free copy of software i need a software interface, high level language written (c, pascal or other), from AX25 and KISS protocols.

Can you help me with this software or with the e-mail address of some BBS developers that can help me ???

Thank you for attention, enjoy on the air

73 de IK4LZH john

Date: 8 Nov 1994 12:09:15 GMT
From: Gianluca Mazzini <gmazzini@deis.unibo.it>
Subject: New access protocol

Do you now if exist some protocol directly oriented to Amatour networks with higher throughtput of AX25 ??

If someone has built it, exist some KISS implementation ??

There is some research team working on this topic ??

Please send me information:

gmazzini@deis.unibo.it

73 de IK4LZH john

Date: Tue, 8 Nov 94 14:00:33 -0500
From: brunelli_pc@delphi.com
Subject: NoCal 00 goes after Packet BULLetins

This thread should really move to rec.radio.amateur.policy
you guys would be in fine company there!

73 de n1qdq

Date: Tue, 08 Nov 94 17:20:06 GMT
From: jangus@skyld.grendel.com (Jeffrey D. Angus)
Subject: Packet addresses and Internet: Connection?

In article <tallath.24.00045CE1@hookup.net> tallath@hookup.net writes:

> And here I am. Why? I have noticed -- on a few things that I have
> been amassing -- that individuals will say they are accessible by
> such-and-such an address on packet. Now correct me if I'm wrong,
> but doesn't packet interface to the Internet to a certain extent?

Some of packet, notably the tcp/ip stuff started by Phil Karn has
SMTP so that mail is handled the same way as on the internet. Newer
versions of NOS (newer than NET for the nit pickers) have SMTP to
Packet BBS mail handling provisons. Some NOS systems are actually
connected to the internet and as such handle mail both ways. The real
PROBLEM is the name addressing conventions only *look* the same.

> If this were so, then it would suggest the possibility that these
> addresses might be converted to an address that is accessible
> through Internet e-mail, just as Compuserve and other networks/
> services are. So I ask all the great packet enthusiasts, is this
> possible? And if so, how is the address converted?

Internet e-mail is domain based. Packet e-mail is location based.

73 es GM from Jeff

--
"1935 will go down in history. For the first time, a civilized nation has
full gun registration. Our streets will be safer, our police more efficient,
and the world will follow our lead into the future." - Adolf Hitler

Amateur: WA6FWI@WA6FWI.#SOCA.CA.USA.NOAM Internet: jangus@skyld.grendel.com
US Mail: PO Box 4425 Carson, CA 90749 Phone: 1 (310) 324-6080

Date: 7 Nov 1994 21:15:16 -0500
From: gregm10150@aol.com (GregM10150)
Subject: Pakratt for Windows-PK232MBX Problem

In article <39k8u7\$j8q@lucy.infi.net>, joneil@infi.net writes:

You have to upgrade the firmware to '91 or later. This is stated in their ads.

N3PLI @ N3ACL.#EPA.PA

Date: 8 Nov 1994 21:37:00 GMT
From: rkarlqu@scd.hp.com (Richard Karlquist)
Subject: Pulsed BPSK hoax?(???)

In article <39n9h5\$mc7@newsstand.cit.cornell.edu>, System Bartender <matt@plab.dml.cornell.edu> wrote:
>Just ran across an interesting pair of articles... "A New Pulsed
>Bi-Phase Digital Communications System" by K6HH (73 Amateur Radio,
>June-July 1988). Does anybody know anything about this proposal?
>
>A quick synopsis: BPSK is performed on an RF signal, but with TINY
>(0.02 radian = 1.2 degrees), nearly instantaneous phase shifts, at
>twice the data rate. These shift pulses are decoded as positive and
>negative spikes coming from a PLL, with every other spike being a
>timing pulse (and the others data). Supposedly at such small phase
>shifts, the output looks like async AM. (Seems to make sense when you
>think of the Bessel series...) He provides a circuit that performs all
>of the above in 4000 series CMOS, then isolates and amplifies the
>single upper sideband which is transmitted. A basically complete
>receiver schematic is also provided, performing synchronous demod
>using the aforementioned sync pulses.
>
>Ok, this seems physically feasible... but his performance claims for
>the circuit, namely 19.2kbit/s in < 3kHz bandwidth, seem fishy at
>best. The attempt at a theoretical explanation fails outright, and
>the experimental data is IMHO inconclusive at best. Thus my questions
>are: Does any of this make sense? Was it immediately debunked after
>its publication or just ignored? Are there any "obvious" signs that
>such a narrow bandwidth is flat out impossible? (Everybody I've
>mentioned it to immediately thinks it's impossible, after which they

```
>sit around scratching their head for a while...)
>
>I'm tempted to try to reconstruct the given circuit, but would like to
>know ahead of time if it's a wild goose chase after all.
>
>      -mgk
>
>--
>73 de kb8uox                "Wisdom is ignorance...
>Matt Kangas, mgk3@cornell.edu    stupidity, I call freedom!"
>aka matt@plab.dml1.cornell.edu    -p.westerberg
```

That's interesting. Currently there is a place called Pegasis Data Systems or something that is hawking a scheme called "VPSK" that sounds similar to the above explanation. In the above case, what is described is simply taking a baseband data transmission scheme and upconverting it to an RF frequency. It will occupy the same RF bandwidth as it did at baseband. It doesn't seem like the signal would fit into 3 kHz. (certainly not with "instantaneous" phase transitions.) Of course there are schemes that will. Just feed a 19.2k modem into the mike input of an SSB transmitter, and you have 19.2K in 3 kHz. BW. But it's done with QAM, not the scheme in the 73 article. The tradeoff is that you need well upward of 20 dB. signal to noise ratio to do it. Now in Pegasis's case, they claim they only need 10.5 dB. S/N because Shannon's law no longer applies. Yeah right. And they're not even using FEC. Both cases make no sense to me. Anyone else confirm or deny this?

Rick Karlquist
rkarlqu@scd.hp.com

Date: 3 Nov 1994 00:17:35 GMT
From: blaknite@escape.com
Subject: TNC/MMC Software for SB?

Hey everyone....

I was wondering if there is any Multi-Mode Controller software out there for the soundblaster/pro/16 sound card series or compatibles. I know there is a SSTV TX/RX software package advertised in QST, but I;m wondering if there is any RTTY/Packet/CW/AMTOR/PACTOR etc.. software for the SoundBlaster.....If not that, how about for one of those DSP based soundcards or modem (ZyXel, for example) If anyone has any info, let me know....Thanks!

Noah AA2KT

End of Ham-Digital Digest V94 #373
